CALTECH/MIT
VOTING TECHNOLOGY PROJECT

A multi-disciplinary, collaborative project of
the California Institute of Technology – Pasadena, California 91125 and
the Massachusetts Institute of Technology – Cambridge, Massachusetts 02139

WHY EVERYTHING THAT CAN GO WRONG OFTEN DOES:
An Analysis of Election Administration Problems

Thad E. Hall
The Century Foundation

R. Michael Alvarez
Caltech

Key words: ***election administration, principal-agent theory, vote-by-mail, early voting, Internet voting***

VTP WORKING PAPER #10
November 2003
Revised November 26, 2003

Why Everything That Can Go Wrong Often Does:
An Analysis of Election Administration Problems

Abstract

Before the 2000 presidential election, few citizens in the United States paid much attention to election administration. But scholars have noted that election administration has been a problem for decades. Despite the attention paid to election administration in the research literature, most public policy efforts in since 2000 have been focused on purchasing new voting equipment and fixing problematic procedures, and not on resolving some of the underlying problems in the process of conducting elections in America. Our paper applies the logic of principal-agent theory to the problem of election administration, and analyzes problems in the conduct of elections from this perspective. We examine various components of the dominant method of voting in the United States—poll site voting—and use our principal-agent perspective to demonstrate that serious problems in the polling place environment could be resolved by other means of serving voters, especially vote-by-mail, early voting, and Internet voting.

Few citizens cared about election administration in the United States before November 7, 2000. But scholars have recognized that election administration has been a problem at least since 1934, when the Brookings Institution issued a report stating "The is probably no other phase of public Administration in the United States, which is so badly managed as the conduct of elections" (Harris 1934, 1). The irony here is rich. Elections are where the public makes primary decisions that affect all citizens and all administrators, and where public preferences manifest themselves in decisions about who will run all levels of government and, through the initiative and referenda process, even how the government will be run. Yet, the history of election administration is one where amateur, part-time administrators have been trusted with administering this most critical governmental function.

After the 2000 presidential election, the debate over election reform shifted to examining the administration of the nation's election system. In this process, most of the focus has been on voting equipment and on developing procedural remedies for flaws observed in the current election process. Consider, for example, the recent election reform legislation enacted by Congress—the "Help America Vote Act of 2002" (P.L. 107-252). The primary focus of the legislation is to provide states with money to purchase new voting equipment and to encourage states to implement a series of specific procedures, such as statewide voter registration systems and provisional voting.

These reforms, and many other national and state level reform efforts (e.g., Governor's Select Task Force on Elections Procedures, Standards and Technology 2001; National Commission on Federal Election Reform (NCFER) 2001) have typically focused on changing the current election system without considering whether the model of election administration that is used today is appropriate.[1] That is, why do people vote at polling places on a single day?

What are the managerial complexities created by using such an election system? Are there other models for elections that would strengthen the ability of election administrators to control and manage the election process?

In this paper, we use the logic of principal agency to analyze problems in the existing election system and to identify alternate means of serving voters that allow administrators to retain greater control over the election process. Principal-agent theory has been used extensively in public administration, implementation analysis, and political science to examine the problems associated with management and administration in a decentralized environment.[2] Using this theoretical construct, we consider the various components of poll site voting that administrators must manage in the current system and use cases from recent elections to illustrate the difficulties associated with managing each component of the system. We then explore other means of serving voters—such as vote-by-mail, early voting, and Internet voting—that allow election administrators to bypass the serious agency problems associated with election administration. We conclude with a discussion of how administrators can use experimentation to test these administration techniques and present systematic data from Oregon and the United Kingdom to bolster this point.

Principal-agent Theory

Both economists (e.g., Coase 1937) and administrators (e.g., Barnard 1938) were responsible for developing agency theory and for preparing the way for subsequent work in management theory.[3] A critical management problem in most organizations is delegation. Delegation occurs when a principal—who wants an activity accomplished but cannot easily perform the task—instead hires an agent to accomplish the task. Unfortunately, just as principals cannot do the task themselves, they often have difficulty knowing if they hired the right person

and whether the task is being accomplished appropriately. Moral hazards and adverse selection leave principals in the position of not knowing what type of person the agent is or knowing the actions that the agent is taking are appropriate.

Principal-agent problems are inherently information related. There are four types of strategies that are typically employed by principals to overcome this information asymmetry: (1) contracting, (2) candidate screening requirements, (3) monitoring requirements, and (4) institutional checks. However, each of these mitigation strategies is complicated and has weaknesses for the problem of election administration, as we note below.

Designing contracts between principals and agents is complicated because both sides have an incentive to ensure that the contract maximizes their own position (e.g., Kiewiet and McCubbins 1991, chapter 2; Donohue 1989, esp. chapter 5).[4] From the principal's perspective, the contract should constrain the agent's ability to act contrary to the goals of the principal, and maximize the amount of work that the agent will be completing. It should contain a mix of rewards and sanctions that provide incentives for the agent to act appropriately. However, designing appropriate contracts is difficult, and they often allow agents to act contrary to the expectations of the principal. Even if a contract is drawn up appropriately, it can be costly for the principal to enforce the terms of the contract and to gather the information that is necessary to ensure that the agent is fulfilling her end of the agreement.

A well-designed contract is of limited benefit if the organization cannot overcome adverse selection problems. It is costly to collect meaningful data about an individual's job performance once they have been hired. Therefore, it is important to hire the right person at the outset. However, developing an effective screening process can also be exceedingly difficult. Just as there is a "lemon" problem in the used-car market, under-qualified candidates apply for

jobs that maximize their pay relative to their skills (e.g., Akerlof 1970). Principals must spend valuable resources in order to pierce the veil of deception that agents have an incentive to cloak themselves within.

The difficulties associated with contracting and selection lead many principals to use monitoring to determine how well agents are performing. Government is rife with monitoring requirements, with performance reports and the like often required (Hall and O'Toole 2000). The primary benefit of monitoring is that the true behavior of agents can be revealed over time. There are many techniques for monitoring and auditing the behavior of agents in order to determine if they are acting appropriately (e.g., Banks 1989; Banks and Weingast 1992; Bendor, Taylor, and van Gaalen, 1987), but each technique is costly. Monitoring takes time away from achieving the goal that is being monitored and principals can end up flooded with information and having to sort through data to determine if agents are behaving appropriately. Additionally, it can take significant amounts of time for the principal to observe whether the agent is acting consistently with job expectations.

Institutional mechanisms can also be enacted to limit the ability of agents to act outside the interest of principals. The most common type of check is to limit the ability of the agent to act unilaterally. Requiring agents to receive signoff before acting and requiring multiple actors to agree on a single decision are examples of this sort of institutional check. The goal behind these institutional checks is to limit the damage that an agent can do if they decide to directly act against the interests of the organization.

The principal-agent model is beneficial for an analysis of the problems of election administration because of four key hypotheses that can be derived from past research on agency problems:

1. The principal-agent dilemma can be eliminated if the principal chooses not to delegate. As we discuss below, there are procedures that can be developed that can allow election administrators the ability to avoid significant types of delegation.
2. The passage of time is necessary for the performance of agents to be reviewed. The methods available to principals for minimizing the effects of the principal-agent dilemma – contracting, monitoring, and the like – require time to pass so that the agent can act and then these actions can be evaluated by the principal. Unfortunately, given the way in which elections are conducted in America, election administrators do not have the luxury of using typical monitoring procedures to alleviate agency problems.
3. Overcoming the adverse selection problem requires a large pool of potential agents from which to select. For any screening process to function effectively, the principal must have a choice of agents from which to choose and be in a position to reject all unqualified agents. Election administrators have few resources available to attract a large pool of highly qualified agents, and often must employ less-qualified agents than they would prefer.
4. The ability of the principal to negotiate successfully with agents is contingent on the ability of the principal have resources to negotiate with. A contract, by definition, requires both sides to agree on terms. Any leverage that the principal can have over the agent is likely to bring the negotiations to a resolution, and election administrators have few resources they can use to develop contracts with agents that can persuade agents to act consistently with the principal's expectations.

In the next section, we discuss how the current election process operates and why the traditional poll site system creates a series of principal-agent problems that produce significant problems in

election administration.

The Current Election System

Election administration has three fundamental parts. First, there are the interactions between the administrator and the candidates that set the stage for the election. Second, there are interactions between administrators and various entities that are involved in the ballot and voter information production process. So, for example, election administrators need to design and proofread ballots, voter guides (in the limited number of localities that utilize them) must be prepared, and any required ballot language translations have to be conducted.[5] However, with rare exceptions, election administration rarely falters at these points, in large measure because of the control that election administrators have over the process.[6]

Election administration typically falters at the third part of the process: voter registration and the voting process.[7] Failures occur here, we argue, because of the agency problems produced by complicated registration and voting systems. With passage of the National Voter Registration Act (NVRA) of 1993 many steps were taken to streamline the voter registration process. The voter registration form used by states was largely standardized, as was the process for filing the form with election administrators. Voters could register through most government agencies, including the department of motor vehicles (DMV), through interest groups and political parties, and by just mailing in a registration form themselves to the election administrator. In most states, voter registration forms must be presented to the election administrator at least 30 days prior to Election Day, and these data are entered into locally administered voter registration data bases. In most states, this streamlined process involves a large number of actors.[8]

The voting process is similarly complex. Consider how the GAO (2001a) described the

task of election administration in preparing for Election Day:

> Although there was variation in how jurisdictions prepared for and conducted the November 2000 election, behind the scenes, election administration officials across the United States performed similar duties. Before election day, they designed ballots, marshaled and trained thousands of workers to staff the polls on election day, located and prepared polling places, organized and delivered voting equipment and supplies, and educated citizens. *On the day of the election, election officials shared control of the election with an army of poll workers who staffed and oversaw the polls where votes were cast and ballots collected*. (GAO-02-03, 2001a, 15-16, emphasis added).

Once voting is completed, the ballots are counted and the election certified. Depending on the type of voting equipment a jurisdiction utilizes, ballots are either counted at the poll site as voters cast their ballots, or at a central location. Once the votes are tallied, the election is certified through a process outlined in state law.

Applying Principal-Agent Theory to Election Administration

When applying principal-agent theory to the election administration issues of voter registration and voting, the election administrator is the principal working with a large number of agents throughout the election process. On Election Day, most election administration is not conducted by election administrators at all; it is performed either by entities that have preferences at odds with the principal, or by people who are at best skilled amateurs in election administration.[9] Moreover, the nature of elections and the spacing of elections in time make the tools that have traditionally been used to constrain the activities of agents almost useless to an election administrator. Last, election administrators have few resources they can use to produce contracts with agents that will help align the agent's behavior with the principal's objectives.

In the current voter registration process, there are two principals and a number of agents.[10] One principal is the state election official (SEO) who is ultimately responsible for the voter registration database, but in practice the local election officials (LEOs) are the key principals. The LEOs, in turn, are highly dependent upon a variety of political parties, advocacy groups, other government organizations, and citizens, because under NVRA voters can obtain voter registration materials from these agents; thus having an accurate and complete voter registration list is contingent on the actions of these agents. However, there is no guarantee that when an individual registers to vote through any group or entity—even a government entity—that the registration forms are completed correctly, have accurate information, or even whether they are actually given to the election administrator. The registration system under NVRA provides the principals with none of the traditional controls that can be used to constrain agents. There is no way for an election official could use the typical solutions to the agency problem (like monitoring or contracting) to alleviate the agency problems involved in the voter registration process.

A GAO survey (2001a) found that 46 percent of election jurisdictions had serious concerns about the voter registration process. Problems that arise included the receipt of incomplete voter registration forms and a failure on the part of government agencies—especially departments of motor vehicles—to forward voter registration forms in a timely manner (GAO 2001a, 12).[11] Thus, a significant number of voters come to the polls on Election Day thinking that they are properly registered to vote when in fact they are not. The Caltech-MIT Voting Technology Project (VTP 2001) estimated that between 1.5 million and 3 million voters were disenfranchised in 2000 because of problems with the voter registration system—more than who were disenfranchised because of more heavily publicized problems with voting machines.

The voter registration agency problems are mild compared with the problems associated with poll site voting. Here, the problems are numerous and principal-agent theory suggests that these difficulties are likely to be intransigent. The "all-in-one-day" nature of elections force election officials as principals rely heavily on various agents with the conduct of poll site voting. LEOs are at the mercy of the owners of poll sites, the poll workers, and the voting equipment vendors to ensure that elections can be a success. All of this delegation is a recipe for potential problems. As the GAO has noted: "…57 percent of voting jurisdictions nationwide encountered major problems in conducting the November 2000 election. Although all jurisdictions did not experience the same problems, about half of all jurisdictions cited problems with recruiting enough qualified poll workers. However, few election jurisdictions systematically collected information on how well their jurisdictions administered the election. As a result, what they consider to be major problems may be based on anecdotal information and limited analysis" (GAO-02-03, 2001a, 15-16).

This analysis by GAO points out several principal-agent problems. First, there is an adverse selection problem inherent in this system. There is a relatively small pool of poll workers, so LEOs often cannot screen poll workers adequately because they cannot afford to turn many poll workers away. Nor is there sufficient time – as the agent's job is performed and completed on a single day – for the election official to effectively monitor job performance of agents. Of course, election administrators attempt to alleviate the monitoring problems on election day by requiring multiple workers at each poll site and by the efforts of external actors to monitor poll site activities, but these are insufficient to insure that poll workers perform their job to the principal's expectations. Additionally, as the size of the election jurisdiction increases, the ability of election officials to screen workers declines precipitously. For example, in

Alexandria, Virginia, where there are 24 poll sites and approximately 200 poll workers, election officials have the capacity to at least screen the chief poll worker for each precinct with some care. By contrast, there are 5,000 poll sites in Los Angeles County, California, with 5,000 chiefs and 25,000 poll workers. Screening this many individuals is almost an impossible task, putting LEOs in the position of having to trust the implementation of election services to individuals about which they know little, if anything. Nor do election administrators have the financial resources to contract with poll site workers—payment for polling place workers typically amounts to less than what people could earn by spending the day working at a fast food restaurant. Instead, election officials have to hope that their locality has a large pool of civic-minded citizenry, who are willing to serve the community on Election Day and who can find the time away from work and family to do this.

Adverse selection problems are not limited to poll workers; poll sites can be similarly problematic. The number of institutions willing to allow their facilities to be used as a polling site is declining, including public schools, which have security concerns about their facilities being used as polling sites (GAO 2001a, 165-167), despite the fact that in many states these institutions are required by law to provide facilities for poll sites upon request by an election official. Further, it is often difficult to select a poll site that is accessible to the disabled; the GAO (2001b) found that 84 percent of poll sites used in the 2000 election were not fully accessible to people with disabilities. Even when election officials do find appropriate sites, they still do not control the facilities that house the poll site and are often at the mercy of custodians, security guards, and others to open the building in a timely manner for poll workers on Election Day. And the owners of poll sites do cancel on election officials, often at the last minute, leaving them scrambling for new sites (Hall 2002).

Second, there is a lack of effective Election Day operations monitoring by election officials. Monitoring requires having personnel at a poll site examining operations on Election Day. Considering that election officials have a difficult time finding qualified poll workers, it is not surprising that election officials do not have the personnel to evaluate poll site operations effectively. Instead, election officials typically obtain information about poll site operations from citizens who have complaints or from interest groups that have an interest in monitoring poll activities. For example, interest groups who represent language minority voters often have an interest in monitoring poll site activities to determine if LEOs are violating the Voting Rights Act. Third party monitoring can provide election administrators with information for identifying election problems, although this information can be inaccurate (being politically motivated) and difficult to resolve.[12] Improper or inadequate monitoring of poll workers on election day can lead to many problems in the polling place, ranging from severe problems like poll sites not opening, to incorrect or inconsistent enforcement of election regulations, to subtle problems like poll workers providing inaccurate information to voters.

Monitoring elections is complicated because there is little time to monitor the individuals involved in the conduct of elections. Elections are not ongoing events in the traditional sense; they occur on a single day, perhaps three or four times per year, but are not a daily activity. Therefore, election officials are typically not in a position to collect longitudinal data or to rectify problems in a timely manner. If the problem is subtle, election officials might not find out about it until the polls close, by which time the problem can only be addressed for the next election. Even if the problem is readily noticeable, it can take hours to remedy, during which time hundreds of voters can be disenfranchised. For example, if just one percent of the polls in Los Angeles County open late, 50,000 voters can potentially be affected. Monitoring may be

important for evaluating election administration but in many cases the data can only be used in the next election.

Third, election administrators often have difficulties with contracting. Contracts are commonly used to manage the relationship between LEOs and voting equipment manufacturers. However, having a contract with a vendor is not a guarantee that everything will function as expected. The adoption of new voting equipment by Miami-Dade County is a case in point.[13] The County entered into a contract with Election Systems and Software (ES&S) to provide touch screen voting equipment for the entire County. Given the timing of the purchase – at the front-end of a cycle when many states and localities are adopting new voting equipment – and the size of the contract, ES&S should have had every incentive to ensure that the terms of the contract was fulfilled completely. However, the September 10, 2002 primary election in Miami-Dade County showed that having a contract did not ensure that everything functions correctly.

The Miami-Dade County Inspector General's report (OIG 2002) found that the County adopted a voting system that did not meet the requirements listed in the request for proposal (RFP). The company won the contract in part by guaranteeing that they would be able to produce ballots in three languages – English, Spanish, and Creole – even though the company had never produced a tri-lingual ballot for their system before. The company had just eight months from when the contract was awarded until the September election to create a tri-lingual ballot and the company met the goal; the system was certified by the State twenty days before the election.

However, the certified system was not what the County had requested. The earlier version of the machine took just a minute to boot up; the machines delivered for the 2002 elections took almost seven minutes to boot-up and it was not possible to boot-up more than one

voting machine at a time. Because poll workers had been trained on an earlier version of the system, many of them removed the activation cartridge from the machine before the software had completely loaded, requiring the poll worker to start the process over. Poll workers were given new instruction sheets – prepared by ES&S – for activating the systems, but these new directions were provided less than a week before the election, and the new instructions for booting the system were buried in the directions. Most poll workers arrived to work on Election Day unaware that there was a potential problem with the machines.

This case illustrates that contracting is a difficult process. Contractors have a clear interest in promising things that they may not be able to deliver in order to get LEOs to complete a contract. Once the LEO has bought the system, the contractor has the LEO hooked. It is very difficult for the LEO to retaliate against the contractor if problems arise; the LEO owns the system and has to figure out how to make it work. In the Miami-Dade County case, there was a clear adverse selection problem. ES&S had an incentive to promise things to the LEO that they were not certain that they could deliver as they promised. The County failed to screen the RFP's appropriately and selected a contractor that, once again, made the county the butt of late night comedians.

Overcoming the Principal-agent Problem in Election Administration

There are serious principal-agent problems in election management. However, principal-agent theory also suggests likely solutions to these problems. Consider first possible solutions to the problems associated with managing voter registration. As we noted before, a major problem with the current registration project is that the principal has few means by which to constrain agency activity. The major election reform commissions (e.g., NCFER 2001; VTP 2001)

recommended that voter registration should be centralized at the state level with the SEO, eliminating one level of agents from the process and strengthening the principal responsible for this activity. As the Michigan Qualified Voter File illustrates, there are many advantages to having a statewide registration database including creating a streamlined process and a single point of contact for all registration documents that is easier to manage.[14] There are also cost savings associated with a centralized system.

The success of the Michigan system can also be attributed to the ability of the SEO – because they represent elections for the entire state – to better negotiate with the DMV and other state actors regarding the way in which voter registrations are handled compared to individual LEOs. SEOs can negotiate access to statewide databases, such as driver's license data, so that registration data can be kept up to date. SEOs have leverage that the LEOs do not since LEOs are inherently inferior politically to state actors and are more numerous.[15]

Principal-agent problems at poll sites are even more serious and inherent in the process of election management. Even if problems do not occur at a given poll in a given jurisdiction in a given election, the threat of these problems is always there. For example, the host of a poll site can decide right before an election to use their facility for a purpose other than voting, requiring the LEO to search for a new voting location and inform voters about the change in venue. Poll workers forget that it is Election Day – as happened in Los Angeles in 2002 – or willfully decide not to show up for work, leaving poll sites unmanned or understaffed. These and other problems can easily leave voters without a place to vote and disenfranchised, even if only temporarily.

Only in the smallest of jurisdictions can an election administrator single-handedly overcome the adverse selection and moral hazard problems inherent in poll site voting. Even then, the problem can only be overcome if the administrator actually runs the poll site. But in

any jurisdiction with more than a few poll sites, the question remains: how can principals overcome these polling place problems where LEOs cannot run the election without agents? One answer is to do away with poll sites and allow voters to vote from wherever they want in a given period of time before an election. By doing away with poll sites and making all voters absentee voters – as is done in the vote-by-mail (VBM) system in Oregon, or by early voting in Texas, and could be done in the future with Internet voting – several major principal-agent problem are solved by ending the delegation of election management and allowing the LEO to retain control over as much of the election process as possible.

By moving the election process out of traditional polling places—utilizing mail balloting, early voting, or even Internet voting—there no longer are polling places or poll workers to whom the administration of the election has to be delegated. There are many fewer voting machines to be procured. Instead, with vote-by-mail, the LEO only has to produce an absentee ballot, an activity easily under their direct control, provide the ballot and election materials to voters, and have ballot tabulation software that can count the ballots, again, a technology that they need in any event. The only medium between the voter and the LEO is a transit medium—typically the post office—although voters can return their ballot to a physical location as well. Problems can occur with VBM—for example, in 2002 King County, Washington election officials had a breakdown in the absentee voting process that may have disenfranchised thousands—illustrating that no system is completely foolproof.[16]

An important feature of VBM is that it has a track record, both in the United States and abroad. Oregon was the first state to use VBM as a means of overcoming principal-agent problems. In 1981, the state enacted a law that allowed all VBM trials to be conducted in local elections; in 1987, VBM could be used in all special elections and local elections (Southwell and

Burchett 1997). Local governments quickly adopted VBM because of the cost savings and because they gained more control over elections by not having to delegate election management to poll workers and poll sites. By 1994, between 20 and 25 percent of all Oregonians were voting absentee in the statewide elections still held at poll sites. In 1995, the Oregon Secretary of State took advantage of the resignation of U.S. Senator Robert Packwood and ordered that the primary and general elections to replace Packwood be carried out using VBM. Primary election ballots were sent to the approximately 1.8 million registered voters. Voters could either mail the ballot in or drop the ballot off at designated sites, such as the county courthouse. In the primary election, approximately 58 percent of eligible voters cast a VBM ballot. In the general election, the turnout rate was 66 percent, which is close to average for a congressional election in Oregon.

Since 1996, all statewide elections in Oregon have been held using VBM. This technique has proven to be quite valuable for LEOs, as they no longer have problems at the polls. A 1996 survey of Oregonians illustrates the ease of the VBM process (Southwell and Burchett 1997). In the 1995 election, less than 2 percent of voters encountered any difficulties in returning their ballot, in part because almost 90 percent of voters cast their ballots within 2 weeks of receiving it (more than half voted in the first week). The survey also found that VBM enfranchised voters who traditionally have a difficult time voting at the polls. These include the approximately 15 percent of voters who traditionally have difficulty getting to the polls because of physical disabilities, a lack of transportation, or because of the time constraints inherent in their job. Also, a significantly higher percentage of non-white voters and single-parent households, voted, as did those who typically find voting difficult because they have moved recently or because they work; the percent of VBM voters in both categories were higher than in traditional elections.

Subsequent studies have identified other outcome factors that show how VBM affects management outcomes, as measured by voter participation and the number of voter errors on the ballot. In Oregon, VBM appears to have a significant stimulative effect on voting, encouraging voters to participate more than any factor other than it being a presidential election (Southwell and Burchett 2000). VBM also helps to retain voters in the voting electorate; once a voter votes using VBM, they are likely to continue voting in subsequent elections (Berinsky et al. 2001). Some of these voters historically voted in only one election, on average, before they dropped back out of the electorate. With VBM, they voted continually. Because VBM captures and hold voters in the electorate, it has the effect of increasing turnout.[17] VBM is also effective in lowering voter error rates. The Secretary of State's office has calculated the ballot error rate in every county in every general election since 1992.[18] The data show that, in the majority of Oregon counties that use optical scan technology, the error rate has steadily declined in every presidential elections since 1992.

VBM has also been used in the United Kingdom. There, the Electoral Commission (Commission) has been encouraging local election administrators to conduct experiments and try new innovations—including VBM, which the British refer to as "all-postal elections"—that could improve voter turnout and improve election administration.[19] For example, a VBM pilot was conducted in 2001 in an election for the West Wiltshire District Council, a local election where 257 voters were eligible to vote. Voters had two weeks to cast their ballot and—as is the case in Oregon—could return the ballot either by mail or by dropping off the ballot at a designated collection point.

The local government conducted a voter education effort before the election, informing all potential voters that the upcoming election would be conducted using VBM. The result was

quite positive, with the 56 percent turnout in the special election being almost three times higher than in recent by-elections, and almost 70 percent higher than turnout in the most recent general local election. It was also cost-effective, with the LEO saving one-third of the typical cost for a special election. This was one of many VBM experiments in the UK, all of which have been successful. The costs of sending ballots out by mail and educating voters about VBM are much lower than the costs associated with actually running an election at the poll sites, where poll workers must be paid, equipment purchased, and materials for poll workers developed.

In addition to unrestricted absentee voting and VBM, early voting has also changed the election process over the past two decades. Early voting currently is used in at least eight states and is especially prevalent in Texas, which has used this voting method since 1988. Early voting frees voters from having to fulfill their civic duty within a twelve-hour window on a Tuesday, allowing voters to cast their ballots at a poll site at their own convenience. It is also considered a more secure voting method compared to the absentee voting process because it is conducted at an official polling place, among observers and election officials, providing a more secure, coercion-free, and private voting environment.[20] Early voting not only makes voting easier, but it does not create partisan or major demographic divides. Early voters are just as likely as Election Day voters to be Democrats or Republicans, and are better-informed votes, in part because they tend to be strong partisans. Early voting also is more likely to be used by the elderly and lower-income voters, which is somewhat surprising since lower-income citizens are generally considered to be low-propensity voters (e.g., Stein 1998; Verba, Schlozman, and Brady 1995).

In the future, the Internet or other electronic technologies may become the medium through which individuals register to vote and actually cast their ballot.[21] As with VBM,

registration and voting over the Internet or with other electronic technologies will allow election administrators to avoid delegation as much as possible (Alvarez and Hall 2004). Election administrators will be able to provide election services directly to the voter—including voter registration services and voting services—and voters will be able to use email as a simple way of communicating back to election administrators. Again, the problems at poll sites with poll workers and polling equipment will disappear. With Internet voting, the LEO can control the voting equipment and how voters interact with election services.

Drawbacks of Alleviating Agency Problems

VBM, unrestricted absentee voting, early voting, and in the future, Internet voting, may improve voting opportunities for voters and may provide local election officials with greater control over the election process. However, some critics have expressed concerns about whether these voting methods—especially VBM and Internet voting—raise important privacy and fraud issues. For example, with VBM and Internet voting, there is no guarantee that voters can mark and seal their ballot in private, without coercion or pressure. A traditional polling place allows voters to stand in a voting booth or behind a curtain, alone, after verifying their identity for a polling place worker. In addition, state laws are quite strict about the partisan and political activities allowed in the vicinity of a polling place. Concerns about the privacy of mailed ballots are especially acute for voters in certain environments, such as nursing homes or other care facilities. Privacy concerns also have been raised regarding overseas ballots, especially since some military personnel have been allowed to fax their ballots to election officials. Additionally, election office can only verify the identity of a VBM voter by comparing the signature on the ballot envelope with the signature on file. With precinct voting and early voting, the voter is

required to appear in person.

Although these privacy and fraud concern are real, there is little evidence that supports claims of widespread coercion and lack of privacy with the VBM process. Specific instances of absentee voting fraud have occurred: in a widely publicized case in Miami in 1997, significant fraud was alleged in the absentee voting process and the courts eventually decided not to count any absentee ballots in determining the election outcome.[22] However, a systemic study of vote fraud in California found little evidence of significant absentee voting fraud. Between 1994 and 2002, fourteen cases of absentee voting fraud were opened by the secretary of state's election fraud investigation unit: seven cases of fraudulent absentee voting, four cases involving violations of absentee voting requirements, and three cases focused on absentee ballot applications that were not returned. Only one case involving absentee voting fraud was referred to a county district attorney for further investigation, and not a single case of absentee voting fraud was prosecuted in that nine-year period (Alvarez 2002). Earlier studies of absentee voting also found very little evidence for absentee voting fraud (Miller 1948).

Critics have also argued that liberalized voting by mail and early voting effect the nation's civic values. These critics talk about the ceremonial and symbolic aspects of Election Day voting—such as everyone voting with their neighbors at a single place—and their value in fostering a sense of citizenship (Stromer-Galley 2003). However, there is no research indicating that, compared with precinct voters, absentee voters have diminished civic values or that civic values in Oregon or California are any worse than in states like New York, which has restrictive absentee voting laws. Additionally, critics tend to ignore the impact that long lines and other polling place problems may have on a citizen's civic values, not to mention the immediate impact that polling place problems have on voting behavior.[23]

Another related critique is that early voters do not cast informed votes. For example, scholar Norman Ornstein wrote in 2001 that early voters "voted from a smaller base of knowledge than the rest of us had; it was the equivalent of deciding the winner of a basketball game at the end of the third quarter."[24] Although early voters miss out on the last week or so of the campaigns, there is no research indicating that absentee voters are less informed than precinct voters. Additionally, many VBM voters in Oregon miss little of the election before they cast their ballots. In the 2000 Oregon general election, elections officials received 45 percent of the VBM ballots in the final two days of the election; in the 2002 general election, election officials received 48 percent in the final two days.[25]

Implications

Some readers might question the application of principal-agent theory to election administration. After all, elections have historically been run by amateurs—political party members or individuals who are motivated by a sense of civic-mindedness. However, as Robert Putnam has documented, there has been a marked decline in civic engagement and in social capital over the last 50 years. For example, membership in the League of Women Voters is down more than 60 percent from its peak in 1965, and is continuing downward at a sharp rate (Putnam 2000, 439, 442). Similarly, memberships in the PTA and in religious organizations have declined as well, and as commuting times increase and the household mobility rate remains at approximately 18 percent annually, social capital will continue to decline. As Putnam (2000, 346) notes, "…the performance of representative government is facilitated by the social infrastructure of civic communities…In the language of economics, social capital lowers transaction costs and eases dilemmas of collective action." Obviously, the converse is true as well, and it is in this world of declining social capital that election officials operate today.

Voting is a basic part of our democracy, yet across the nation the implementation of elections is by amateurs who have little experience—in the most extreme case they have some on-the-job training spread out over several years. Major elections in the U.S. are held on a single day across the nation, requiring LEOs to gear up in a massive effort to serve their entire community in a single 12-hour timeframe. The principal-agent model illustrates that ability of the LEO to control the quality of service that is provided to their customer—the voting public—is greatly limited by their inability to carefully select poll workers and to control the activities at poll sites. Even worse, if problems do arise, elections are not an ongoing process in the typical sense. It is not as though the election administrator is in a position to come in the day after the election and work through the problems with the election workers as they do their jobs, since there may not be another election for months, and the same individuals may not staff it. In every election, the LEO has to make a new set of delegations to poll sites, poll workers, and other parties.

There are ways to avoid or minimize delegation problems, but they require a reconceptualization of elections outside of the traditional one-day, poll site extravaganza used in America for more than 200 years. There is no reason why LEOs cannot recapture control of the election process by removing the need to delegate election authority to amateur officials. Models exist—such as vote-by-mail, early voting, and Internet voting—that will allow election officials to manage the voting process directly. LEOs should consider experimenting with VBM and early voting, to determine if this form of elections provides them with the ability to serve the public in a more effective and efficient manner and to study the potential problems with these alternative electoral procedures in a rational and scientific manner.

Public administrators have long known that managing the implementation of public

services that are networked is a complex undertaking that has implications for oversight and democratic theory (e.g., O'Toole 1997a, 1997b). Elections are a basic service that administrators provide to the citizenry so that they can express their policy preferences and attempt to ensure that the government functions in a manner that they desire. Improving election management would help voters have more confidence in the voting process and make participating in elections a simple, easy process. Election reform has a long history in public administration (e.g., Hamilton 1988), and with the passage of the Help America Vote Act, this tradition continues.

Notes

[1] The report *Voting: What Is, What Could* Be, by the Caltech/MIT Voting Technology Project (VYP) (2001) was the only report that examined elections beyond the scope of the current system, although they too typically focused on improving the processes associated with poll site voting.

[2] Examples include Thompson, Fred. 1998. "Public Economics and Public Administration." In *Handbook of Public Administration*, (2d ed.), edited by Jack Rabin, W. Bartley Hildreth, and Gerald Miller, 995-1063. New York: Marcel Dekker, Inc.; Brehm, John and Scott Gates. 1997. *Working, Shirking and Sabotage: Bureaucratic Response to a Democratic Public*. Ann Arbor, MI: University of Michigan Press. Additionally, Frederich (1940) and Finer (1941) refer explicitly to principals and agents in their famous exchange regarding accountability. Frederich's argument is a non-formalized statement of the principal agent problem, with his explicit concern about informational asymmetries and conflicts of interest between principals and agents. Finer, has similar concerns, albeit somewhat less explicitly argued, that he thinks can only be solved if principals can use negative incentives of "correction and punishment," including allowing the principal to fire the agent with relative ease.

[3] Summaries of principal-agent theory can be found in Bendor 1988; Kiewiet and McCubbins 1991 (especially Chapter 2); Mitnick 1992; and Moe 1984.

[4] As Cooper (2003) has shown, however, it is rarely the case that the government has the resources necessary to maximize their half of the contract.

[5] The issues surrounding serving language minority voters can be found in the report of the United States General Accounting Office, "Bilingual Voting Assistance Provided and Costs," GAO/GGD-97-81, May 1997.

[6] The problems that do arise most typically involve language minority voters. For examples, see GAO 1997; "Justice Department Announces Resolutions in Two Florida Voting Matters," Department of Justice, Press Release, #380: 06-27-02, June 28, 2002; and "About Language Minority Voting Rights: Enforcement," U.S. Department of Justice, Civil Rights Division, Voting Section, available at *http://www.usdoj.gov/crt/voting/sec_203/activ_203.htm* But other problems arise, for example, regarding ballot design; the "butterfly ballot" used in Palm Beach County in the 2000 presidential election is a prominent example.

[7] The most comprehensive source of information about the administration of elections in America is the report of the United States General Accounting Office, "Elections: Perspectives on Activities and Challenges Across the Nation," GAO-02-3, October 2001.

[8] A number of states are exempt from the provisions of NVRA because they either have no voter registration provisions (North Dakota), or because they employ election-day voter registration (Idaho, Maine, Minnesota, New Hampshire, Wisconsin and Wyoming.

[9] The problems associated with conflicting goals among organizations is discussed in Rainey 1997, chapter 5.

[10] Although the purpose of the analysis here is to consider the issue of election administration, the voter registration process – and the principal-agent models contained therein – can also be viewed from the perspective of the voter, where the voter is the principal and there are a chain of agents, including the SEO, the LEO, and the medium through which they registered to vote (e.g., the DMV).

[11] The problems that LEOs have with government agencies such as departments of motor vehicles are most obvious to the LEOs, since these entities are the source of a regular flow of registration forms. However, other entities such as advocacy groups are just as likely to be the source of problems.

[12] See, for example, Hall forthcoming.

[13] The "Office of Inspector General Inquiry into Circumstances Surrounding the September 10, 2002, Election in Miami-Dade County" (Office of the Inspector General, Miami-Dade County, September 20, 2002) is the most detailed account of the problems surrounding this election.

[14] A brief description of the Michigan system can be found in Appendix B of NCFER 2001.

[15] Of course, there is nothing that centralizing the voter registration system does for the problems inherent in either citizen errors in completing a registration form or the failure of advocacy groups and political parties to handle forms completed by citizens in an appropriate manner.

[16] See *Secretary of State Releases Review of King County Elections*, News release, February 13, 2003 for a summary of the issues and a link to the report. Available at *http://www.secstate.wa.gov/office/news.aspx?news_id=192*

[17] However, VBM does not tend to pull new voters – including registered voters who have not traditionally voted – into the electorate. If voters do not use VBM when initially introduced to it, they will persist in ignoring the future ballots that are delivered as well.

[18] *Statistical Examination of Ballot Types in Oregon General Elections: 1992-2000*. This report can be accessed online at *www.sos.state.or.us/executive/policy-initiatives/vbm/pcstudy.PDF*

[19] The following discussion is taken from *Pilot Scheme Evaluation, West Wiltshire District Council, 13 June 2002*, The Electoral Commission, August 2002. The report is available online at

http://www.electoralcommission.gov.uk/files/dms/westwiltshire_6751-6296__E__N__S__W__.pdf

[20] The Caltech/MIT report (July 2001) recommended that liberalized absentee voting procedures be replaced with expanded early-voting opportunities. It states, "We have no systematic measures of fraud, but fraud appears to be especially difficult to regulate in absentee systems. In-precinct voting or 'kiosk' voting is observable. Absentee voting is not. The prospect for coercion is increased with absentee voting on demand" (p. 41).

[21] While registration and voting over the Internet is the most commonly discussed application of electronic technologies for early or absentee voting, other electronic technologies like email, fax, and text messaging have been used on trial bases in both the United States and the United Kingdom.

[22] *Judge Orders New Miami Mayoral Election*, CNN, March 4, 1998. Available online at *www.cnn.com/ALLPOLITICS/1998/03/04/miami.mayor* [July 22, 2003].

[23] The Caltech/MIT Voting Technology Project (2001) estimated that of the 4 to 6 million votes that were lost in the 2000 presidential election, as many as 1 million were lost due to polling place problems.

[24] "The Dangers of Voting outside the Booth," *New York Times*, August 3, 2001 *www.aeipoliticalcorner.org/NO%20Articles/no010803.pdf* [July 22, 2003].

[25] The 2000 data are available from the office of the Oregon secretary of state at *http://www.sos.state.or.us/elections/nov72000/other.info/g00byday.htm* [July 22, 2003]; the 2002 data at *www.sos.state.or.us/elections/nov52002/g02byday.pdf* [July 22, 2003].

References

Alvarez, R. Michael. 2002. *How Widespread is Voting Fraud in America?* Working Paper, California Institute of Technology.

Alvarez, R. Michael and Thad E. Hall. 2004. *Point, Click, and Vote: The Future of Internet Voting*. Washington, D.C.: Brookings Institution Press.

Akerlof, George A. 1970. The Market for 'Lemons': Quality Uncertainty and the Market Mechanism. *Quarterly Journal of Economics* 84(3): 488-500.

Banks, Jeffrey S. 1989. Agency Budgets, Cost Information, and Auditing. *American Journal of Political Science* 33(3): 670-99.

Banks, Jeffrey S. and Barry Weingast. 1992 The Political Control of Bureaucracies under Asymmetric Information. *American Journal of Political Science* 36(2): 509-24.

Barnard, Chester I. 1938. *The Functions of the Executive*. Cambridge, MA: Harvard University Press.

Bendor, Jonathan. 1988. Review Article: Formal Models of Bureaucracy. *British Journal of Political Science* 18: 353-95.

Bendor, Jonathan, Serge Taylor, and Roland van Gaalen. 1987. Politicians, Bureaucrats, and Asymmetrical Information. *American Journal of Political Science* 31: 796-828.

Berinsky, Adam J., Nancy Burns, and Michael W. Traugott. 2001. Who Votes by Mail? A Dynamic Model of the Individual-level Consequences of Voting-by-Mail Systems. *Public Opinion Quarterly* 65(2): 178-97.

Brehm, John and Scott Gates. 1997. *Working, Shirking, and Sabotage: Bureaucratic Response to a Democratic Public*. Ann Arbor: The University of Michigan Press.

Caltech/MIT Voting Technology Project. 2001. *Voting: What Is, What Could Be.*

CNN, March 4, 1998. *Judge Orders New Miami Mayoral Election*, CNN, March 4, 1998. Available online at *www.cnn.com/ALLPOLITICS/1998/03/04/miami.mayor* [July 22, 2003].

Coase, Ronald. 1937. The Nature of the Firm. *Economica*. 386-405.

Cooper, Phillip J. 2003. *Government by Contracts.* Washington, D.C.: CQ Press.

Donahue, John D. 1989. *The Privatization Decision: Public Ends, Private Means*. New York: Basic Books.

Electoral Commission, The, August 2002. *Pilot Scheme Evaluation, West Wiltshire District Council, 13 June.* Report available online at *2002http://www.electoralcommission.gov.uk/files/dms/westwiltshire_6751-6296__E__N__S__W__.pdf*

Finer, Herman. 1941. Administrative Responsibility in Democratic Government. *Public Administration Review* 1(Summer): 335-50.

Friedrich, Carl J. 1940. Public Policy and the Nature of Administrative Responsibility. *Public Policy* 3-24.

Governor's Select Task Force on Elections Procedures, Standards and Technology (Florida). 2001. *Revitalizing Democracy in Florida.*

Hall, Thad E., forthcoming. Public Participation in Election Management: The Case of Language Minority Voters. *American Review of Public Administration.*

Hall, Thad E. 2002. *LA Story: The 2001 Election*. A Century Foundation Report. New York: The Century Foundation.

Hall, Thad. E., and O'Toole, L. J., Jr. 2000. Structures for policy implementation: An analysis of national legislation, 1965-1966 and 1993-1994. *Administration and Society* 31(6): 667-86.

Hamilton, Randy H. 1988. American All-Mail Balloting: A Decade's Experience. *Public Administration Review.* 48(5): 860-66.

Harris, Joseph P. 1934. *Election Administration in the United States*. Washington, D.C.: Brookings Institution.

Kiewiet, D. Roderick and Mathew D. McCubbins. 1991. *The Logic of Delegation*. Chicago: The University of Chicago Press.

Miller, George F. 1948. *Absentee Voters and Suffrage Laws*. Washington D. C.: The Daylion Company.

Mitnick, Barry M. 1992. The Theory of Agency and Organizational Analysis. In *Ethics and Agency Theory: An Introduction,* edited by Norman E. Bowie and R. Edward Freeman. New York, Oxford University Press.

Moe, Terry M. 1984. The New Economics of Organization. *American Journal of Political Science* 78: 739-77.

National Commission on Federal Election Reform. 2001. *To Assure Pride and Confidence in the Electoral Process.* August.

Office of the Inspector General, Miami-Dade County. 2002. "Office of Inspector General Inquiry into Circumstances Surrounding the September 10, 2002, Election in Miami-Dade County." September 20.

Oregon, Secretary of State and Deputy Secretary of State, *Statistical Examination of Ballot Types in Oregon General Elections: 1992-2000.* Report available online at *www.sos.state.or.us/executive/policy-initiatives/vbm/pcstudy.PDF*

Oregon, Secretary of State. *Unofficial Number of Returned Ballots Daily Returns by County November 7, 2000 General Election*. *http://www.sos.state.or.us/elections/nov72000/other.info/g00byday.htm* [July 22, 2003].

Oregon, Secretary of State. *Unofficial Ballot Returns November 5, 2002 General Election*. *www.sos.state.or.us/elections/nov52002/g02byday.pdf* [July 22, 2003].

O'Toole, L. J., Jr. 1997a. Implications For Democracy of A Networked Bureaucratic World. *Journal of Public Administration Research and Theory* 7(3): 443-59.

O'Toole, L. J., Jr. 1997b. Treating Networks Seriously: Practical and Research-Based Agendas in Public Administration. *Public Administration Review* 57(1): 45-52.

Putnam, Robert D. 2000. *Bowling Alone: The Collapse and Revival of American Community.* New York: Simon & Schuster.

Public Law 107-252, 107th Cong. (29 October 2002), *Help America Vote Act of 2002.*

Rainey, Hal G. 1997. *Understanding & Managing Public Organizations,* 2d ed. San Francisco: Jossey-Bass Publishers.

Southwell, Priscilla L. and Justin Burchett. 2000. The Effect of All-mail Elections on Voter Turnout." *American Politics Quarterly* 28(1): 72-79.

Southwell, Priscilla L. and Justin Burchett. 1997. Survey of Vote-by-Mail Senate Election in the State of Oregon. *PS: Political Science and Politics.* March: 53-57.

Stein, Robert. 1998. Early Voting. *Public Opinion Quarterly* 62: 57-70.

Stromer-Galley, Jennifer. 2003. Voting and the Public Sphere: Conversations on Internet Voting *PS: Political Science and Politics.* 36(4): 727-31.

Thompson, Fred. 1998. Public Economics and Public Administration. In *Handbook of Public Administration*, 2d ed., edited by Jack Rabin, W. Bartley Hildreth, and Gerald Miller, 995-1063. New York: Marcel Dekker, Inc.

United States General Accounting Office. 1997. *Bilingual Voting Assistance Provided and Costs.* GAO/GGD-97-81.

United States General Accounting Office. 2001a. *Elections: Perspectives on Activities and Challenges Across the Nation*. GAO-02-3.

United States General Accounting Office. 2001b. *Voting with Disabilities: Access to Polling Places and Alternative Voting Methods*. AO-02-107.

U.S. Department of Justice, Civil Rights Division, Voting Section, *About Language Minority Voting Rights: Enforcement* available at http://www.usdoj.gov/crt/voting/sec_203/activ_203.htm

Verba, Sidney, Kay Lehman Schlozman, and Henry Brady. 1995. *Voice and Equality: Civic Voluntarism in American Politics*. Cambridge: Harvard University Press.

Washington, D.C. Department of Justice. *Justice Department Announces Resolutions in Two Florida Voting Matters*. Press Release #380: 06-27-02, June 28, 2002.

Washington, Secretary of State, *Secretary of State Releases Review of King County Elections*. News Release, February 13, 2003 available at http://www.secstate.wa.gov/office/news.aspx?news_id=192